

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: June 25, 2003, 11:49:10 ; Search time 17.7 seconds

(without alignments)
81.470 Million cell updates/sec

Title: US-09-869-540a-2_COPY_5_19

Perfect score: 90

Sequence: 1 LRCMGRVRYPCMOV 15

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :
1: p1r1:*
2: p1r2:*
3: p1r3:*
4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	90	100.0	56	2	S68499 melanin-concentrat
2	90	100.0	165	2	A36237 melanin-concentrat
3	90	100.0	165	2	I52634 melanin-concentrat
4	82	91.1	132	1	MTONIK melanin-concentrat
5	82	91.1	132	1	MTONIK melanin-concentrat
6	82	91.1	132	2	B32910 melanin-concentrat
7	82	91.1	132	2	S34653 melanin-concentrat
8	82	91.1	132	2	S34654 melanin-concentrat
9	82	91.1	132	2	A32910 melanin-concentrat
10	44.5	49.4	186	2	D91252 hypothetical prote
11	42	46.7	250	2	G70968 probable methyltra
12	42	46.7	577	1	V68BE1 glycoprotein E - s
13	42	46.7	660	2	T22793 hypothetical prote
14	42	46.7	1477	2	A63009 polyketide synthet
15	42	46.7	1489	2	G98274 hypothetical prote
16	42	46.7	3206	1	GNVSPV genome polypeptide
17	41	45.6	315	2	S03416 probable transpos
18	40.5	45.0	426	2	G02277 creatine transport
19	40.5	45.0	635	2	S23431 choline transport
20	40.5	45.0	635	2	A46061 Na(+)-dependent cr
21	40.5	45.0	635	2	JC2386 creatine transport
22	40.5	45.0	635	2	G02095 creatine transport
23	40	44.4	143	2	I17202 Ig heavy chain var
24	40	44.4	367	2	F69816 reticuline oxidase
25	40	44.4	567	2	F87594 conserved hypoch
26	40	44.4	1131	2	T19442 hypothetical prote
27	40	44.4	1711	1	A55148 protein-tyrosine-P
28	39	43.3	111	2	S25343 ORF5 protein - yea
29	39	43.3	170	2	A60630 4-hydroxyphenylase

30	39	43.3	368	2	AB2215 hypothetical prote
31	39	43.3	404	2	H87635 Rieske 2Fe-2S fam
32	39	43.3	430	2	T47014 hypothetical prote
33	39	43.3	430	2	AC0237 probable membrane
34	39	43.3	478	2	T27714 hypothetical prote
35	39	43.3	535	2	T17212 hypothetical prote
36	39	43.3	1286	2	T33476 hypothetical prote
37	39	43.3	1583	2	F86366 protein F26F24.8 l
38	39	43.3	4302	2	A38971 polycystic kidney
39	39	43.3	189	1	IVH16 interfeon alpha-1
40	38.5	42.8	189	1	T37584 IRN-alpha-N-prote
41	38	42.2	61	2	C33429 Atase inhibitor 3
42	38	42.2	85	2	T17696 hypothetical prote
43	38	42.2	179	2	I50142 gamma-crystallin M
44	38	42.2	179	2	I50141 gamma-crystallin M
45	38	42.2	185	2	S76991 hypothetical prote

ALIGNMENTS

RESULT 1

S68499 melanin-concentrating hormone - mouse (fragment)

C:Species: Mus musculus (house mouse)

C:Date: 29-Jan-1998 #sequence_revision 06-Feb-1998 #text_change 07-May-1999

C:Accession: S68499

R:Qu. D.: Ludwig, D.S.; Gammelcoft, S.; Piper, M.; Pellegymounter, M.A.; Cullen, M.J.

Nature 380, 243-246, 1996

A:Title: A role for melanin-concentrating hormone in the central regulation of feedi

A:Reference number: S68499; MUID:96207751; PMID:8637571

A:Accession: S68499

A:Molecule type: mRNA

A:Residues: 1-56 <QND>

A:Experimental source: tissue hypothalamus

C:Superfamily: melanin-concentrating hormone

C:Keywords: hormone, hypothalamus; neuropeptide

F:1-19/Product: neuropeptide N-GE (fragment) #status predicted <NGE>

F:22-35/Product: neuropeptide N-EI #status predicted <NEI>

F:38-56/Product: melanin-concentrating hormone #status predicted <MAT>

Query Match

Best Local Similarity 100.0%; Score 90; DB 2; Length 56;

Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 42 LRCMGRVRYPCMOV 56

QY 1 LRCMGRVRYPCMOV 15

DB 42 LRCMGRVRYPCMOV 56

RESULT 2

A36237 melanin-concentrating hormone precursor - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 16-Jul-1999

C:Accession: A36237; A37407; A37406

R:Thompson, R.C.; Watson, S.J.

DNA Cell Biol. 9, 637-645, 1990

A:Title: Nucleotide sequence and tissue-specific expression of the rat melanin conce

A:Reference number: A36237; MUID:91083836; PMID:2261081

A:Accession: A36237

A:Molecule type: DNA

A:Status: preliminary; not compared with conceptual translation

A:Residues: 1-165 <THO>

A:Cross-references: GB:M62641; NID:g205329; PIDN:AAA1581.1; PID:g205330

R:Nahon, J.L.; Presse, F.; Bittencourt, J.C.; Sawchenko, P.E.; Vale, W.

Endocrinology 125, 2056-2065, 1989

A:Title: The rat melanin-concentrating hormone messenger ribonucleic acid encodes m

A:Reference number: A37407; MUID:9005146; PMID:2477226

A:Accession: A37407

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-165 <NAH>

A:Cross-references: GB:M29712; NID:g205327; PIDN:AAA41580.1; PID:g205328
 R:Vaughan, J.M.; Fischer, W.H.; Hoeger, C.; Rivier, J.; Vale, W.
 Endocrinology 125, 1660-1665, 1989
 A:Title: Characterization of melanin-concentrating hormone from rat hypothalamus.
 A:Reference number: A37406; MUID:89338286; PMID:2759038
 A:Accession: A37406
 A:Status: preliminary
 A:Molecule type: protein
 A:Residues: 147-165 <VAN>
 C:Superfamily: melanin-concentrating hormone

Query Match 100.0%; Score 90; DB 2; Length 165;
 Best Local Similarity 100.0%; Pred. No. 1,4e-07;
 Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 LRCMLGRVYRRCMV 15
 Db 151 LRCMLGRVYRRCMV 165

RESULT 3

152634 melanin-concentrating hormone precursor - human
 N:Alternate names: prepro-melanin-concentrating hormone
 C:Species: Homo sapiens (man)
 C:Date: 02-Jul-1996 #sequence, revision 02-Jul-1996 #text_change 16-Jul-1999
 C:Accession: 152634; 165414; A34551
 R:Breton, C.; Schorpp, M.; Nahon, J.L.
 Brain Res. Mol. Brain Res. 18, 297-310, 1993
 A:Title: Isolation and characterization of the human melanin-concentrating hormone gene
 A:Reference number: 152634; MUID:93316802; PMID:8326825
 A:Accession: 152634
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-165 <RES>
 A:Cross-references: GB:S63697; NID:g402795; PIDN:AAB27493.1; PID:g402796
 A:Accession: 165414
 A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA
 A:Residues: 88-96, 'S', 98-100, 'V', 102-108, 'E', 110-121, 'D', 123-131, 'T', 133-142, 'V', 144-148
 A:Cross-references: GB:S64288; NID:g402797; PIDN:AAB27494.1; PID:g402798
 R:Prese, F.; Nahon, J.L.; Fischer, W.H.; Vale, W.
 Mol. Endocrinol. 4, 632-637, 1990
 A:Title: Structure of the human melanin concentrating hormone mRNA.
 A:Reference number: A34551; MUID:91125371; PMID:2149166
 A:Accession: A34551
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-41, 'F', 43-103, 'G', 105, 'Q', 107-112, 'D', 114-165 <PRE>
 A:Cross-references: GB:M57703; NID:g187445; PIDN:AAA63214.1; PID:g187446
 C:Genetics:
 A:Gene: GDB:PMCH
 A:Cross-references: GDB:128784; OMIM:176795
 A:Map position: 12q23-12q24
 A:Introns: 83/3; 150/1
 C:Superfamily: melanin-concentrating hormone
 C:Keywords: hormone, hypothalamus
 F:1-21/Domain: signal sequence #status predicted <SIG>

Query Match 100.0%; Score 90; DB 2; Length 165;
 Best Local Similarity 100.0%; Pred. No. 1,4e-07;
 Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 LRCMLGRVYRRCMV 15
 Db 151 LRCMLGRVYRRCMV 165

RESULT 4

MTONIK melanin-concentrating hormone 1 precursor - chum salmon
 N:Alternate names: MCH1
 C:Species: Oncorhynchus keta (chum salmon)

C:Date: 30-Sep-1990 #sequence, revision 30-Sep-1990 #text_change 24-Nov-1999
 C:Accession: JS0282; JS0048; A01472
 R:Takayama, Y.; Wada, C.; Kawachi, H.; Ono, M.
 Gene 80, 65-73, 1989
 A:Title: Structures of two genes coding for melanin-concentrating hormone of chum sa.
 A:Reference number: A91618; MUID:90006787; PMID:2792771
 A:Accession: JS0282
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-132 <TAK>
 A:Cross-references: GB:M27872; NID:g213452; PIDN:AAA49418.1; PID:g213453
 R:Ono, M.; Wada, C.; Okawa, I.; Kawazoe, I.; Kawachi, H.
 Gene 71, 433-438, 1988
 A:Title: Structures of two kinds of mRNA encoding the chum salmon melanin-concentrat.
 A:Reference number: A91598; MUID:89138019; PMID:2465207
 A:Accession: JS0048
 A:Molecule type: mRNA
 A:Residues: 1-3, 'S', 5-132 <ONO>
 A:Cross-references: GB:M23573; NID:g213456; PIDN:AAA49420.1; PID:g213457
 R:Kawachi, H.; Kawazoe, I.; Tsudokawa, M.; Kishida, M.; Baker, B.L.
 Nature 305, 321-323, 1983
 A:Title: Characterization of melanin-concentrating hormone in chum salmon pituitaries.
 A:Reference number: A93316; MUID:84014069; PMID:6621686
 A:Accession: A01472
 A:Molecule type: protein
 A:Residues: 116-132 <KAN>
 C:Comment: For melanin-concentrating hormone 2, see PIR:MTONZK.
 C:Comment: This hormone, isolated from the pituitary gland, has an activity antagonist
 C:Genetics:
 A:Gene: MCH1
 C:Superfamily: melanin-concentrating hormone
 C:Keywords: hormone; hypothalamus; pituitary
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-115/Domain: propeptide #status predicted <PRO>
 F:116-132/Product: melanin-concentrating hormone #status experimental <MAT>
 F:120-129/Disulfide bonds: #status experimental

Query Match 91.1%; Score 82; DB 1; Length 132;
 Best Local Similarity 80.0%; Pred. No. 2,4e-06;
 Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Oy 1 LRCMLGRVYRRCMV 15
 Db 118 MRCWGRVYRRCMEV 132

RESULT 5

MTONZK melanin-concentrating hormone 2 precursor - chum salmon

N:Alternate names: MCH2
 C:Species: Oncorhynchus keta (chum salmon)
 C:Date: 30-Sep-1990 #sequence, revision 30-Sep-1990 #text_change 24-Nov-1999
 C:Accession: JS0283; S04087; JS0049; B01472; A01472
 R:Takayama, Y.; Wada, C.; Kawachi, H.; Ono, M.
 Gene 80, 65-73, 1989
 A:Title: Structures of two genes coding for melanin-concentrating hormone of chum sal
 A:Reference number: A91618; MUID:90006787; PMID:2792771
 A:Accession: JS0283
 A:Molecule type: DNA
 A:Residues: 1-132 <TAK>
 A:Cross-references: GB:M27871; NID:g213454; PIDN:AAA49419.1; PID:g213455
 R:Nahon, J.L.; Schoepfer, R.; Vale, W.
 Nucleic Acids Res. 17, 3598, 1989
 A:Title: cDNA sequence of salmon melanin-concentrating hormone exhibits similarities
 A:Reference number: S04087; MUID:89263809; PMID:2471156
 A:Accession: S04087
 A:Status: translation not shown

A:Molecule type: mRNA
 A:Residues: 1-106, 'SP', 109-132 <NAH>
 A:Cross-references: EMBL:X13685; NID:g64142; PIDN:CAA31978.1; PID:g64143
 R:Ono, M.; Wada, C.; Okawa, I.; Kawazoe, I.; Kawachi, H.
 Gene 71, 433-438, 1988
 A:Title: Structures of two kinds of mRNA encoding the chum salmon melanin-concentrat
 A:Reference number: A91598; MUID:89138019; PMID:2465207

A:Accession: J50049
A:Molecule type: mRNA
A:Residues: 1-107; P', 109-132 <NO>
A:Cross-references: GB:M23574; NID:9213458; PIDN:AAA9421.1; PID:9213459
R:Kawanishi, H.; Kawazoe, I.; Tsubokawa, M.; Kishida, M.; Baker, B.I.
Nucleotide 305, 311-323, 1983
A:Title: Characterization of melanin-concentrating hormone in chum salmon pituitaries.
A:Reference number: A93316; MUID:84014069; PMID:6621686
A:Accession: B01472
A:Molecule type: protein
A:Residues: 116-132 <KAW>
C:Comment: For melanin-concentrating hormone 1, see PIR:MTONIK.
C:Comment: This hormone, isolated from the pituitary gland, has an activity antagonistic
C:Genetics:
A:Gene: MCH2
C:Superfamily: melanin-concentrating hormone
C:Keywords: glycoprotein; hormone; hypothalamus; pituitary
F:1-24/Domain: signal sequence #status predicted <SIG>
F:25-115/Domain: propeptide #status predicted <PRO>
F:116-132/Product: melanin-concentrating hormone #status experimental <MAT>
F:107/Binding site: carbohydrate (asn) (covalent) #status predicted
F:120-129/Disulfide bonds: #status experimental

Query Match 91.1%; Score 82; DB 1; Length 132;
Best Local Similarity 80.0%; Pred. No. 2,4e-06;
Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 1 LRCMLGRVYRRCMOY 15
DB 118 MRCMGRVYRRCMEY 132

RESULT 6
B32910
melanin-concentrating hormone 2 precursor - chinook salmon
C:Species: Oncorhynchus tshawytscha (chinook salmon)
C:Date: 08-Dec-1989 #sequence_revision 08-Dec-1989 #text_change 16-Jul-1999
C:Accession: B32910
R:Minth, C.D.; Qiu, H.; Akil, H.; Watson, S.J.; Dixon, J.E.
Proc. Natl. Acad. Sci. U.S.A. 86, 4292-4296, 1989
A:Title: Two precursors of melanin-concentrating hormone: DNA sequence analysis and in
A:Accession: B32910
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-132 <MIN>
A:Cross-references: GB:M25755; GB:J04562; NID:9213462; PIDN:AAA9423.1; PID:9213463
C:Superfamily: melanin-concentrating hormone

Query Match 91.1%; Score 82; DB 2; Length 132;
Best Local Similarity 80.0%; Pred. No. 2,4e-06;
Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 1 LRCMLGRVYRRCMOY 15
DB 118 MRCMGRVYRRCMEY 132

RESULT 7
S34653
melanin-concentrating hormone 1 - rainbow trout
C:Species: Oncorhynchus mykiss (rainbow trout)
C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Jul-1999
C:Accession: S34653
R:Hall, L.
Submitted to the EMBL Data Library, July 1993
A:Reference number: S34653
A:Accession: S34653
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-132 <HAL>
A:Cross-references: EMBL:X73837; NID:9395051; PIDN:CAA52059.1; PID:9395052
C:Superfamily: melanin-concentrating hormone

Query Match 91.1%; Score 82; DB 2; Length 132;
Best Local Similarity 80.0%; Pred. No. 2,4e-06;
Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 1 LRCMLGRVYRRCMOY 15
DB 118 MRCMGRVYRRCMEY 132

RESULT 8
S34654
melanin-concentrating hormone 2 - rainbow trout
C:Species: Oncorhynchus mykiss (rainbow trout)
C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Jul-1999
C:Accession: S34654
R:Hall, L.
Submitted to the EMBL Data Library, July 1993
A:Reference number: S34654
A:Accession: S34654
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-132 <HAL>
A:Cross-references: EMBL:X73838; NID:9395053; PIDN:CAA52060.1; PID:9395054
C:Superfamily: melanin-concentrating hormone

Query Match 91.1%; Score 82; DB 2; Length 132;
Best Local Similarity 80.0%; Pred. No. 2,4e-06;
Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 1 LRCMLGRVYRRCMOY 15
DB 118 MRCMGRVYRRCMEY 132

RESULT 9
A32910
melanin-concentrating hormone 1 precursor - chinook salmon
C:Species: Oncorhynchus tshawytscha (chinook salmon)
C:Date: 08-Dec-1989 #sequence_revision 08-Dec-1989 #text_change 16-Jul-1999
C:Accession: A32910
R:Minth, C.D.; Qiu, H.; Akil, H.; Watson, S.J.; Dixon, J.E.
Proc. Natl. Acad. Sci. U.S.A. 86, 4292-4296, 1989
A:Title: Two precursors of melanin-concentrating hormone: DNA sequence analysis and
A:Accession: A32910
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-132 <MIN>
A:Cross-references: GB:M25754; GB:J04561; NID:9213460; PIDN:AAA9422.1; PID:9213461
C:Superfamily: melanin-concentrating hormone

Query Match 91.1%; Score 82; DB 2; Length 132;
Best Local Similarity 80.0%; Pred. No. 2,4e-06;
Matches 12; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

OY 1 LRCMLGRVYRRCMOY 15
DB 118 MRCMGRVYRRCMEY 132

RESULT 10
D91252
hypothetical protein EGS4988 [Imported] - Escherichia coli (strain O157:H7, substrain
C:Species: Escherichia coli
C:Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 18-Jul-2001
C:Accession: D91252
R:Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han,
gasawara, N.; Yasunaga, T.; Kuwara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A:Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and
A:Reference number: A93623; MUID:21156231; PMID:11258796
A:Accession: D91252

A.; Liu, F.; Mollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.;
Science 294, 2323-2328, 2001
A>Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent *Agrobacterium tum*
A;Reference number: A97359; PMID:11743194
A;Accession: G98274
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-1489 <KUR>
A;Cross-references: GB:AE007870; PIDN:AK89721.1; PID:g15159635; GSPDB:GN00170
C;Genetics:
A;Gene: AGR_L_2313
A;Map position: linear chromosome

Query Match 46.7%; Score 42; DB 2; Length 1489;
Best Local Similarity 75.0%; Pred. No. 87;
Matches 6; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Oy 7 RYRPPCQ 14
|:|:|:|:|
Db 906 RYRPPCQ 913

Search completed: June 25, 2003, 11:55:46
Job time : 18.7 secs